

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-317. Canceled.

318. (Currently Amended) A method for performing operations on at least one stainer connected in a stainer network, comprising:

establishing a network connection with the at least one stainer in the stainer network, the at least one stainer including a robotic head;

sending commands to the at least one stainer over the network connection; ~~and~~
receiving responses corresponding to commands,

~~wherein operations are performed in response to instructions provided by
at least one controller,~~

wherein the stainer network includes a first ~~more than one~~ controller computer located within the stainer network, and

wherein the stainer network connects to a second computer ~~controllers~~
~~located outside the stainer network~~ located in a second network via a bridge;

processing a first at least one sample with the robotic head of the at least one stainer based upon instructions received from at least one of the first computer or the second computer or both; and

inserting at least one reagent or a second at least one sample into the at least one stainer without interrupting the processing.

319. (Currently Amended) The method of claim 318, wherein ~~the stainer-~~
~~network further includes~~ at least one of the first computer or the second computer is a
server and ~~a plurality of stainers including the at least one stainer~~, and wherein the at
least one stainer is a client of the server.

320. (Previously Presented) The method of claim 319, wherein the server
includes a centralized database comprising configuration information for the at least one
stainer.

321. (Currently Amended) The method of claim 318, ~~wherein sending-~~
~~commands to the at least one stainer further comprises one or more of the steps of:~~
~~relaying commands to the at least one stainer; and-~~
further including relaying commands and queries to a database associated with
the plurality of at least one stainer[[s]], wherein the database comprises information
including status information on stainers, slides, consumables, and treatment protocols
associated with the plurality of at least one stainer[[s]].

322. (Currently Amended) The method of claim 321, further comprising
relaying ~~the commands or~~ the commands and queries from a laboratory information
system, the laboratory information system being located in the second network.

323. (Previously Presented) The method of claim 321, wherein the commands and queries further comprise database maintenance operations including purging, compaction, and database back-up operations.

324. (Currently Amended) The method of claim 321, further comprising relaying ~~commands or the~~ commands and queries to a different stainer when the at least one stainer malfunctions.

325. (Previously Presented) The method of claim 321, wherein sending commands further comprises using a software tool that also provides a defined interface through which operations may be performed on the at least one stainer.

326. (Currently Amended) The method of claim 318, wherein receiving responses further comprises one or more of the steps of:

receiving responses to queries to a database associated with the at least one ~~plurality of~~ stainer[[s]], wherein the database comprises information including status information about stainers, slides, consumables, and treatment protocols associated with the at least one ~~plurality of~~ stainer[[s]]; and

receiving responses to commands from the at least one stainer.

327. (Previously Presented) The method of claim 326, where the responses are further returned from the database to a laboratory information system.

328. (Previously Presented) The method of claim 327, wherein communication between the at least one stainer and the laboratory information system is facilitated by the bridge.

329. (Previously Presented) The method of claim 325, wherein the software tool is a web browser.

330. (Previously Presented) The method of claim 318, further comprising running diagnostic tests and retrieving diagnostic information.

331. (Previously Presented) The method of claim 330, further comprising running diagnostic tests to actively exercise components on the at least one stainer.

332. (Previously Presented) The method of claim 330, further comprising troubleshooting the stainer.

333. (Previously Presented) The method of claim 330, further comprising electronically notifying an operator about the results of the diagnostic tests.

334. (Currently Amended) The method of claim 330, wherein an operator operating the second computer ~~at least one controller~~ is remotely located.

335. (Previously Presented) The method of claim 318, further comprising performing the operations on the at least one stainer while operating other stainers in the stainer network, wherein the operations of the other stainers are not materially affected by the operations of the at least one stainer.

336. (Currently Amended) The method of claim 318, further comprising monitoring ~~[[the]]~~ a status of slides being processed by the at least one stainer.

337. (Currently Amended) The method of claim 318, further comprising obtaining a real-time estimate of ~~[[the]]~~ a completion time of a slide being processed by the at least one stainer.

338. (Previously Presented) The method of claim 318, further comprising encrypting commands and responses sent over the network connection.

339. (Currently Amended) A method for performing operations ~~over a network~~ on at least one stainer connected in a ~~LAN~~ stainer network, comprising:
establishing a network connection with the at least one stainer in the ~~LAN~~ stainer network;
sending commands to the at least one stainer over the network connection, the at least one stainer including a robotic head; ~~and performing one or more of the steps of:~~

~~relaying commands to the at least one stainer, and~~

relaying commands and queries to a database associated with the ~~plurality of~~ at least one stainer[[s]] from a laboratory information system, wherein the database comprises information including status information on stainers, slides, consumables, and treatment protocols associated with the ~~plurality of~~ at least one stainer[[s]]; and

receiving responses corresponding to commands sent to the at least one stainer over the network connection;

processing a first at least one sample with the robotic head of the at least one stainer based upon information received from the laboratory information system; and

inserting at least one reagent or a second at least one sample into the stainer without interrupting the processing.

340. (Previously Presented) The method of claim 339, wherein the stainer network further includes a server and a plurality of stainers including the at least one stainer, and wherein the at least one stainer is a client of the server.

341. (Previously Presented) The method of claim 340, wherein the server includes a centralized database comprising configuration information for the at least one stainer.

342. (Previously Presented) The method of claim 339, wherein the commands and queries further comprise database maintenance operations including purging, compaction, and database back-up operations.

343. (Currently Amended) The method of claim 339, further comprising relaying ~~commands or~~ the commands and queries to a different stainer when the at least one stainer malfunctions.

344. (Previously Presented) The method of claim 339, wherein sending commands further comprises using a software tool that also provides a defined interface through which operations may be performed on the at least one stainer.

345. (Previously Presented) The method of claim 339, wherein receiving responses further comprises one or more of the steps of:

receiving responses to queries to a database associated with the plurality of stainers, wherein the database comprises information including status information about stainers, slides, consumables, and treatment protocols associated with the plurality of stainers; and

receiving responses to commands from the at least one stainer.

346. (Previously Presented) The method of claim 345, where the responses are further returned from the database to a laboratory information system.

347. (Previously Presented) The method of claim 346, wherein communication between the at least one stainer and the laboratory information system is facilitated by the bridge.

348. (Previously Presented) The method of claim 344, wherein the software tool is a web browser.

349. (Previously Presented) The method of claim 339, further comprising running diagnostic tests and retrieving diagnostic information.

350. (Previously Presented) The method of claim 349, further comprising running diagnostic tests to actively exercise components on the at least one stainer.

351. (Previously Presented) The method of claim 349, further comprising troubleshooting the stainer.

352. (Previously Presented) The method of claim 349, further comprising electronically notifying an operator about the results of the diagnostic tests.

353. (Previously Presented) The method of claim 339 ~~[[349]]~~, wherein the at least one stainer is configured to be controlled from a remote location ~~an operator operating the at least one controller is remotely located~~.

354. (Previously Presented) The method of claim 339, further comprising performing the operations on the at least one stainer while operating other stainers in the stainer network, wherein the operations of the other stainers are not materially affected by the operations of the at least one stainer.

355. (Previously Presented) The method of claim 339, further comprising monitoring the status of slides being processed by the at least one stainer.

356. (Previously Presented) The method of claim 339, further comprising obtaining a real-time estimate of the completion time of a slide being processed by the at least one stainer.

357. (Previously Presented) The method of claim 339, further comprising encrypting commands and responses sent over the network connection.